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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/822,625	03/30/2001	Srinivas Gutta	US010124	7123

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS
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BRIARCLIFF MANOR, NY 10510

EXAMINER

ENG, GEORGE

ART UNIT	PAPER NUMBER
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2643

DATE MAILED: 06/03/2004

14

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/822,625

Applicant(s)

GUTTA ET AL.

Examiner

George Eng

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 5-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 5-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This Office action is in response to the amendment filed 3/4/2004/2003 (paper no. 13).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-2 and 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis, Jr. et al. (US PAT. 5,839,000 hereinafter Davis) in view of Yamaguchi et al. (US PAT. 5,912,721 hereinafter Yamaguchi).

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Regarding claim 1, Davis discloses a device (10, figure 1) for remotely controlling a camera having a lens, the device comprising a monitor (20, figure 1) to display a field of view of the lens, detection means (12, figure 1) for determining a gaze by a viewer (16, figure 1), and control means (30, figure 1) for selectively adjusting a zoom and a focus of the lens in a direction of gaze (col.2 line 66 through col. 4 line 65). Davis differs from the claimed invention in not specifically teaching the field of view including images of a plurality of objects so that the detection means determines a first image of the images of the plurality of objects that is being gazed upon by the viewer by generating an image of the viewer's face, using a pattern recognition technique on the image of the viewer's face to determine an orientation of the pupils of the viewer's eye, and the control means adjusts the zoom and focus in direction of the first image. However, Yamaguchi teaches a gaze detection apparatus enabling easy and rapid selection of information for use of the user's gaze point information by determining a first image of images of the plurality of object that is being gaze upon by a viewer (figures 30-31 and col. 28 line 38 through col. 29 line 12) by generating an image of the viewer's face and using a pattern recognition technique on the image of the viewer's face to determine an orientation of the pupils of the viewer's eyes (figures 21A-21G and col. 22 line 45 through col. 24 line 53) in order to determine which location is being seen in information presentation section with respect to the direction of the view line. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Davis in having tthe field of view including images of a plurality of objects so that the detection means determines a first image of the images of the plurality of objects that is being gazed upon by the viewer by generating an image of the viewer's face, using a pattern recognition technique on the image of the viewer's face to

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determine an orientation of the pupils of the viewer's eye, and the control means adjusts the zoom and focus in direction of the first image, as per teaching of Yamaguchi, because it enables easy and rapid selection of information for use of the user's gaze point information.

Regarding claim 2, Yamaguchi teaches to selective adjust a pan orientation and a tilt orientation of the camera and the zoom and focus of the lens as a function of a movement of the first image (figure 5 and col. 11 line 25 through col. 12 line 16).

Regarding claim 5, Davis discloses a device (10, figure 1) for remotely controlling a camera having a lens, comprising a monitor (20, figure 1) to display a field of view of the lens, and a processor (12, 28 and 30) configured to determine a gaze by a view (16, figure 1), and selectively adjusting a zoom and a focus of the lens in a direction of gaze (col.2 line 66 through col. 4 line 65). Davis differs from the claimed invention in not specifically teaching the field of view including images of a plurality of objects so that the detection means determines a first image of the images of the plurality of objects that is being gazed upon by the viewer and the control means adjusts the zoom and focus in direction of the first image, wherein the processor determines the gaze by generating an image of the viewer's face, using a pattern recognition technique on the image of the viewer's face to determine an orientation of the pupils of the viewer's eye. However, Yamaguchi teaches a gaze detection apparatus enabling easy and rapid selection of information for use of the user's gaze point information by determining a first image of images of the plurality of object that is being gaze upon by a viewer (figures 30-31 and col. 28 line 38 through col. 29 line 12) by generating an image of the viewer's face and using a pattern recognition technique on the image of the viewer's face to determine an orientation of the pupils of the viewer's eyes (figures 21A-21G and col. 22 line 45 through col. 24 line 53) in order to

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determine which location is being seen in information presentation section with respect to the direction of the view line. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Davis in having the field of view including images of a plurality of objects so that the detection means determines a first image of the images of the plurality of objects that is being gazed upon by the viewer and the control means adjusts the zoom and focus in direction of the first image, wherein the processor determines the gaze by generating an image of the viewer's face, using a pattern recognition technique on the image of the viewer's face to determine an orientation of the pupils of the viewer's eye, as per teaching of Yamaguchi, because it enables easy and rapid selection of information for use of the user's gaze point information.

Regarding claim 6, the limitations of the claim are rejected as the same reasons set forth in claim 2.

4. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Davis, Jr. et al. (US PAT. 5,839,000 hereinafter Davis) in view of Yamaguchi et al. (US PAT. 5,912,721 hereinafter Yamaguchi) as applied in claim 5 above, and further in view of Saruwatari (US PAT. 5,912,705).

Regarding claim 7, the combination of Davis and Yamaguchi differs from the claimed invention in not specifically teaching to use an outer corner of either eye as a reference to determine an orientation of the pupils of the viewer's eyes. However, Saruwatari teaches a photographing apparatus having a visual axis detecting means utilizing an outer corner of either eye as a reference to determine an orientation of the eyeball of a photographer in order to achieve

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a higher speed and a higher accuracy of recognition of a gazing point (col. 3 line 29 through col. 4 line 15). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the combination of Davis and Yamaguchi in using the outer corner of either eye as a reference to determine an orientation of the pupils of the viewer's eyes, as per teaching of Sarueatari, because it achieves a higher speed and a higher accuracy of recognition of a gazing point.

5. Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis, Jr. et al. (US PAT. 5,839,000 hereinafter Davis) in view of Yamaguchi et al. (US PAT. 5,912,721 hereinafter Yamaguchi) as applied in claim 5 above, and further in view of Lyons et al. (US PAT. 6,411,209 hereinafter Lyons).

Regarding claims 8-9, the combination of Davis and Yamaguchi differs from the claimed invention in not specifically teaching to configure the processor to extract the one of the images of the plurality of objects from the field of view using a non-parametric model for background subtraction. However, Lyons teaches to use a non-parametric model to extract one image from the field of view for background subtraction in order to provide as output a set of regions, i.e., a specific object, of a video frame in a better quality (col. 4 line 52 through col. 5 line 8). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the combination of Davis and Yamaguchi in configuring the processor to extract the one of the images of the plurality of objects from the field of view using a non-parametric model for background subtraction, as per teaching of Lyons, because it provides as output a specific object of a video frame in a better quality.

Response to Arguments

6. Applicant's arguments with respect to claims 1-2 and 5-9 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

8. Any response to this final action should be mailed to:

BOX AF

Commissioner of Patents and Trademarks

Washington D.C. 20231

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Or faxed to:


(703) 872-9306 (for Technology Center 2600 only)

Hand delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington, V.A., Sixth Floor (Receptionist).

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Eng whose telephone number is 703-308-9555. The examiner can normally be reached on Tuesday to Friday from 7:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis A. Kuntz, can be reached on (703) 305-4870. The fax phone number for the organization where this application or proceeding is assigned is 703-308-6306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.


George Eng
Primary Examiner
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